

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Please amend claims 1, 5 and 26 as indicated below (material to be inserted is in **bold and underline**, material to be deleted is in ~~strikeout~~ or (if the deletion is of five or fewer consecutive characters or would be difficult to see) in double brackets [[]]):

Listing of Claims:

1. (Currently Amended) A movable system having capacitance-based position sensing, comprising:

a pair of objects;

an actuator configured to effect an operative range of relative motion between the objects along an axis; and

a capacitance-based position sensor, including

a first plate secured to one of the objects; and

a pair of second plates secured to the other of the objects so that the second plates are adjacent and coplanar, and so that the second plates are spaced from, and parallel to, the first plate as the objects move relative to one another along the axis, and such that the second plates in use come into simultaneous overlap with the first plate,

where the configuration of the first plate and second plates results simultaneously in two spaced-plate capacitors having capacitances that vary

oppositely as the objects move relative to one another ~~within~~ throughout the operative range along the axis, where the capacitance-based position sensor uses the capacitances to generate output usable to determine relative position of the objects along the axis throughout the operative range along the axis; where the capacitance-based position sensor is configured so that the output is substantially independent of perpendicular spacing variations occurring between the first plate and the second plates.

2. (Original) The movable system of claim 1, further comprising a capacitance measuring circuit configured to apply a time-varying input signal to one of the pair of second plates, and apply an inversion of the time-varying input signal to the other of the pair of second plates.

3. (Original) The movable system of claim 2, where the time-varying input signal includes a sinusoidal carrier.

4. (Cancelled)

5. (Currently Amended) A movable system having capacitance-based position sensing, comprising:

a pair of objects;

an actuator configured to effect an operative range of relative motion between the objects along an axis; and

a capacitance-based position sensor, including

a first plate secured to one of the objects; and

a pair of second plates secured to the other of the objects so that the second plates are adjacent and coplanar, and so that the second plates are spaced from, and parallel to, the first plate as the objects move relative to one another along the axis, and such that the second plates in use come into simultaneous overlap with the first plate,

where the configuration of the first plate and second plates results simultaneously in two spaced-plate capacitors having capacitances that vary oppositely as the objects move relative to one another within throughout the operative range along the axis, where the capacitance-based position sensor uses the capacitances to generate output usable to determine relative position of the objects along the axis; and

where the capacitors form part of a capacitance measuring circuit having an output-input transfer function that is substantially independent of perpendicular spacing variations occurring between the first plate and each of the second plates as a result of the pair of objects moving relative to one another.

6. (Original) The movable system of claim 1, where one of the pair of objects is a computer-readable storage medium movably mounted within an enclosure, the capacitance-based position sensor being configured to generate the output so that the output is usable to determine relative position of the storage medium to the enclosure.

7. (Original) The movable system of claim 6, further comprising a read/write device fixed to the enclosure, the read/write device being configured to read data from and write data to the storage medium.

8. (Cancelled)
 9. (Previously Presented) A sensor that outputs varying capacitance based upon changes in relative position along an axis between a pair of objects, comprising:
 - a first plate secured to one of the objects; and
 - a pair of second plates secured to the other of the objects so that the second plates are adjacent and coplanar, and so that the second plates are spaced from and parallel to the first plate as the objects move relative to one another along the axis, and such that the second plates in use come into simultaneous overlap with the first plate,
 - where the configuration of the first plate and second plates results simultaneously in two spaced-plate capacitors having capacitances that continually vary as the objects move relative to one another along the axis, where the sensor uses the capacitances to generate output usable to determine relative position of the objects along the axis;
 - where the sensor is configured so that the output is substantially independent of perpendicular spacing variations occurring between the first plate and the second plates.
10. (Original) The sensor of claim 9, further comprising a capacitance measuring circuit configured to apply a time-varying input signal to one of the pair of second plates, and apply an inversion of the time-varying input signal to the other of the pair of second plates.

11. (Original) The sensor of claim 10, where the time-varying input signal includes a sinusoidal carrier.

12. (Cancelled)

13. (Previously Presented) A sensor that outputs varying capacitance based upon changes in relative position along an axis between a pair of objects, comprising:

a first plate secured to one of the objects; and

a pair of second plates secured to the other of the objects so that the second plates are adjacent and coplanar, and so that the second plates are spaced from and parallel to the first plate as the objects move relative to one another along the axis, and such that the second plates in use come into simultaneous overlap with the first plate,

where the configuration of the first plate and second plates results simultaneously in two spaced-plate capacitors having capacitances that vary continually as the objects move relative to one another along the axis, where the sensor uses the capacitances to generate output usable to determine relative position of the objects along the axis; and

where the capacitors form part of a capacitance measuring circuit having an output-input transfer function that is substantially independent of perpendicular spacing variations occurring between the first plate and the second plates as a result of the pair of objects moving relative to one another.

14. (Cancelled)

15. (Cancelled)

16. (Cancelled)

17. (Cancelled)
18. (Cancelled)
19. (Cancelled)
20. (Cancelled)
21. (Cancelled)
22. (Cancelled)
23. (Cancelled)
24. (Cancelled)
25. (Cancelled)
26. (Currently Amended) A movable system having capacitance-based position sensing, comprising:
 - a pair of objects;
 - an actuator configured to effect relative motion between the objects along plural axes defining a plane; and
 - a capacitance-based position sensor, including
 - a first plate secured to one of the objects; and
 - a pair of second plates secured to the other of the objects so that the second plates are adjacent and coplanar, and so that the second plates are spaced from, and parallel to, the first plate as the objects move relative to one another within the plane, and such that the second plates in use come into simultaneous overlap with the first plate,

where the configuration of the first plate and second plates results simultaneously in two spaced-plate capacitors having capacitances that vary oppositely and continually as the objects move relative to one another throughout an entire operative range of relative motion between the first plate and the second plates within the plane, where the capacitance-based position sensor uses the capacitances to generate output usable to determine relative position of the objects within the plane;

where the capacitance-based position sensor is configured so that the output is substantially independent of perpendicular spacing variations occurring between the first plate and each of the second plates throughout the entire operative range of relative motion between the first plate and the second plates.

27. (Previously Presented) A movable system having capacitance-based position sensing, comprising:

a pair of objects;

an actuator configured to effect an operative range of relative motion between the objects along plural axes; and

a capacitance-based position sensor, including

a first plate secured to one of the objects; and

a pair of second plates secured to the other of the objects so that the second plates are adjacent and coplanar, and so that the second plates are spaced from, and parallel to, the first plate as the objects move relative to one

another along the plural axes, and such that the second plates in use come into simultaneous overlap with the first plate,

where the configuration of the first plate and second plates results simultaneously in two spaced-plate capacitors having capacitances that vary continually as the objects move relative to one another within the operative range along the plural axes, where the capacitance-based position sensor uses the capacitances to generate output usable to determine relative position of the objects along the plural axes.